

Application No. 10/784,160
Supplemental Amendment

SEP 19 2006

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A fixing member comprising:

a substrate surrounding an aperture configured to receive a heater;

an elastic layer including heat resistance rubber provided on the ~~the~~ [[a]] substrate; and

a separation layer including fluorocarbon resin provided on said elastic layer, said elastic layer including ~~consisting mainly of~~ silicone rubber and/or fluorosilicone rubber as a major component free from organosilicone compounds having at least one hydrogen bonded to a silicon atom in one molecule,

wherein said fluorocarbon resin has a tensile strength such that a 30 μ m coating film baked at 340°C has a tensile strength equal to or greater than 25 MPa, and

the separation layer is baked on the elastic layer at a temperature lower than an oxidation starting temperature of the heat resistance rubber.

Claim 2 (Canceled).

Claim 3 (Original): The fixing member according to Claim 1, wherein said fluorocarbon resin comprises Tetrafluoroethylene-Perfluoroalkylvinylether copolymer resin (PFA) as a major component.

Claim 4 (Original): The fixing member according to Claim 1, wherein said separation layer contains inorganic filler.

Claim 5 (Original): The fixing member according to Claim 4, wherein said inorganic filler comprises carbon.

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Claim 6 (Original): The fixing member according to Claim 5, wherein a content of said carbon is from 1 mass % to 5 mass %.

Claim 7 (Previously Presented): The fixing member according to Claim 1, wherein said substrate is a roller made of a metal member including aluminum, stainless steel, brass, or iron.

Claim 8 (Previously Presented): The fixing member according to Claim 1, wherein said substrate is (a) a sheet or an endless belt made of a metal member including stainless steel, or nickel, (b) a sheet or an endless belt made of heat resistance rubber including polyimide or polyamideimide, or (c) a laminated sheet or an endless belt in which said (a) and (b) are laminated.

Claim 9 (Previously Presented): An image forming apparatus comprising the fixing member according to Claim 1.

Claim 10 (Currently Amended - Withdrawn): A manufacturing method of a fixing member comprising the steps of:

forming a first primer layer by applying first primer onto a substrate surrounding an aperture configured to receive a heater;

forming an elastic layer by applying heat resistance synthetic rubber solution onto said first primer layer, said elastic layer including ~~consisting mainly of~~ silicone rubber and/or fluorosilicone rubber as a major component ~~free from organosilicone compounds having at least one hydrogen bonded to a silicon atom in one molecule~~;

forming a second primer layer by applying second primer onto said elastic layer;

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forming a fluorocarbon resin applied layer by applying dispersion liquid or powdered paint including fluorocarbon resin with which a tensile strength of a 30 μm coating film burned at 340°C is equal or greater than 25 MPa as a major component onto said second primer layer; and

baking said fluorocarbon resin applied layer with a baking temperature which is equal or higher than 340°C and less than a temperature for starting oxidation of the heat resistance synthetic rubber constituting said elastic layer.

Claim 11 (Canceled).

Claim 12 (Withdrawn): The manufacturing method of the fixing member according to Claim 10, wherein said fluorocarbon resin comprises Tetrafluoroethylene-Perfluoroalkylvinylether copolymer resin (PFA).

Claim 13 (Withdrawn): The manufacturing method of the fixing member according to Claim 10, wherein said dispersion liquid or said powdered paint contains inorganic filler.

Claim 14 (Withdrawn): The manufacturing method of the fixing member according to Claim 13, wherein said inorganic filler comprises a carbon.

Claim 15 (Withdrawn): The manufacturing method of the fixing member according to Claim 14, wherein a content of said carbon is from 1 mass % to 5 mass %.

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Claim 16 (Withdrawn): The manufacturing method of the fixing member according to Claim 10, wherein said substrate is a roller made of a metal member including aluminum, stainless still, brass, or iron.

Claim 17 (Withdrawn): The manufacturing method of the fixing member according to Claim 10, wherein said substrate is (a) a sheet or an endless belt made of a metal member including stainless still or nickel, (b) a sheet or an endless belt made of a metal member including polyimide or polyamideimide, or (c) a laminated sheet or an endless belt in which said (a) and (b) are laminated.

Claim 18 (Currently Amended - Withdrawn): A manufacturing method of an image forming apparatus comprising the steps of:

forming a first primer layer by applying first primer onto a substrate surrounding an aperture configured to receive a heater;

forming an elastic layer by applying heat resistance synthetic rubber solution onto said first primer layer, said elastic layer including ~~consisting mainly of~~ silicone rubber and/or fluorosilicone rubber as a major component free from organosilicone compounds having at least one hydrogen bonded to a silicon atom in one molecule;

forming a second primer layer by applying second primer onto said elastic layer;

forming a fluorocarbon resin applied layer by applying dispersion liquid or powdered paint including fluorocarbon resin with which a tensile strength of a 30 μ m coating film burned at 340°C is equal or greater than 25 MPa as a major component onto said second primer layer;

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baking said fluorocarbon resin applied layer with a baking temperature which is equal or higher than 340°C and less than a temperature for starting oxidation of the heat resistance synthetic rubber constructing said elastic layer; and
incorporating the fixing member obtained by said steps into an image forming apparatus.